Fort Hood Semi-Annual Weather Briefing

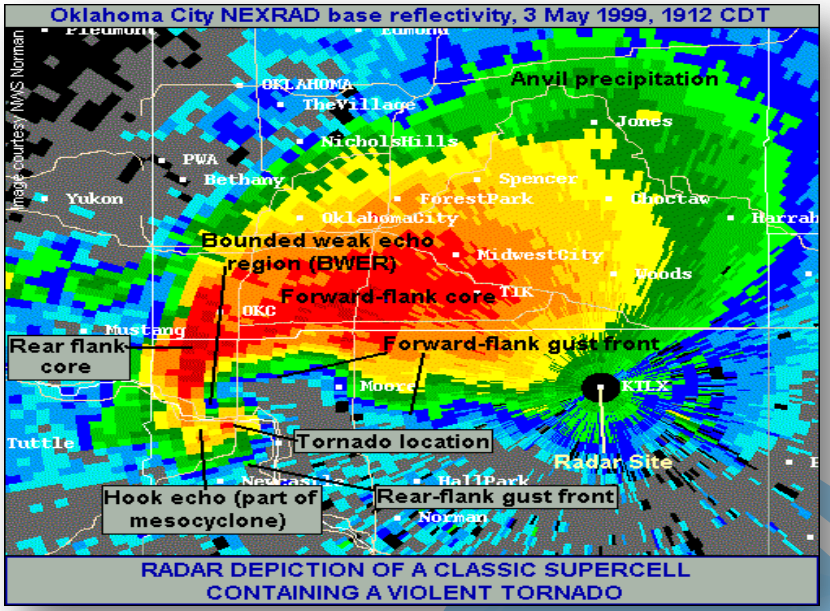
SUMMER TRANSITION SEASON

3d Weather Squadron
(3 WS)

Updated 12 April 2012

OVERVIEW

- Local Area Influences
- Summer Climatology
- Hazards
- Training Areas
- Watches/Warnings/Advisories
- Weather Operations
- POCs



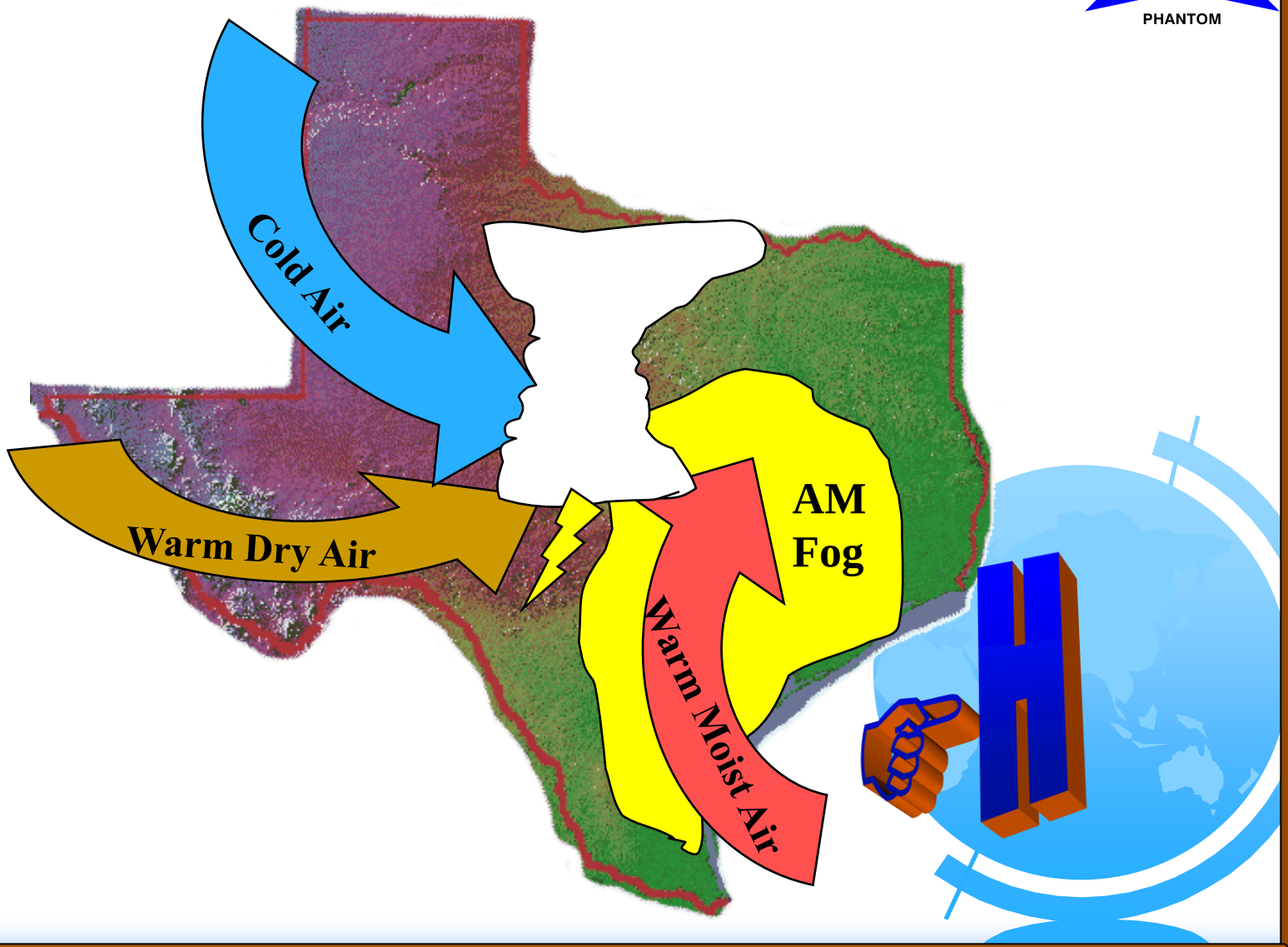
Summer Synoptic Pattern

- Marked by the northward movement of the Bermuda High
- Few true frontal passages with the Polar Front Jet remaining well north, keeping region hot & humid
  - Few that do pass are weak and mainly affect the panhandle region
- Most weather associated with Gulf moisture, dryline--“Marfa Front”

Local Area Influences

- Rolling hills with peaks up to 1,500’
- Large lake areas and abundant foliage
  - Act as moisture sources for thunderstorms and fog
- Flat basin surrounded by hills
- “I-35 Rule” - Storms dissipate over us; regenerate or intensify east of I-35
- Isolated weather conditions throughout reservation
  - What looks good at RGAAF and HAAF can be different on the north and east-side of the reservation
- Low river crossings, hard ground, low water retention causes flash flood situations

Weather Influences

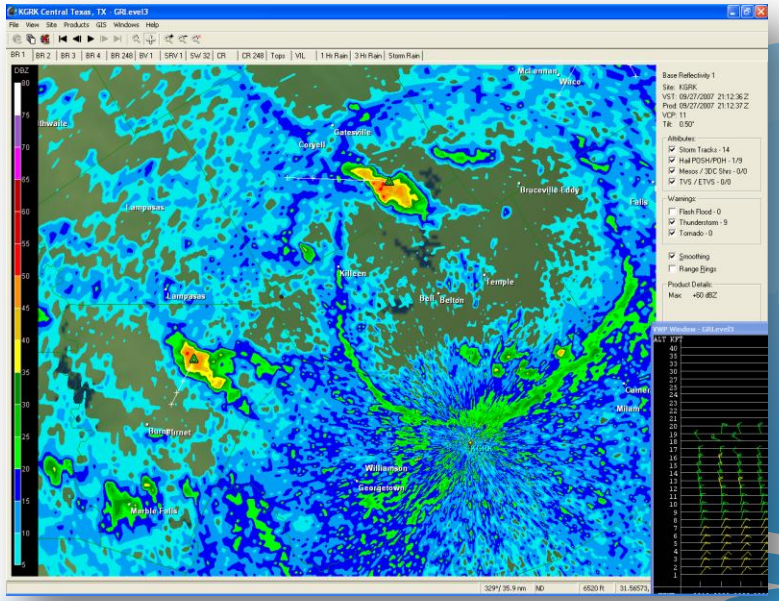


Summer Weather

- Dominated by high temperatures and isolated afternoon and evening thunderstorms (primarily early summer)
  - Average high temperatures are in the mid 90s and lows in the low 70s
  - Extremes range from 55F to 111F
- Early Summer is the rainy season
  - Mostly from thunderstorms

Summer Weather (Cont)

- Air mass thunderstorms form during the heat of the day and generally move slowly with weak steering flow aloft or can remain stationary late afternoon and early evening



Climatological Data

	May	Jun	Jul	Aug	Sep
Temperature					
Mean Max (F)	83	90	95	94	88
Mean Min (F)	64	71	74	74	68
Extm Max (F)	102	108*	109	108	111
Precipitation					
Mean Month (inch)	4.4	3.6	1.8	2.7	2.5
Mean # TSTM Days	8	7	5	5	4

CEILING CLIMO
(< 1,000 Ft)

% Ceiling < 1000 ft
Name: ROBERT GRAY AAF, TX United States Block Station: 722576
ICAO: KGRK Lat: 31.067 Lon: -97.833 Time Offset: -6.00
Data Derived from 14WS Surface Observation Database / POR: 1973 - 2005

14WS (AFWA)
151 Patton Ave, Rm 120
Asheville, NC 28801-5002

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
23Z (17L)	14	12	9	4	2	1	0	1	3	5	10	14
22Z (16L)	15	12	7	5	2	1	0	1	3	5	9	14
21Z (15L)	15	12	8	5	2	1	0	0	3	6	10	14
20Z (14L)	16	13	10	6	1	1	0	1	3	7	10	15
19Z (13L)	19	15	11	7	2	2	0	1	3	8	12	15
18Z (12L)	20	17	13	8	3	1	1	1	5	9	11	17
17Z (11L)	24	20	17	11	5	2	1	2	6	11	14	20
16Z (10L)	25	25	20	14	7	4	1	3	7	14	19	23
15Z (09L)	27	27	22	19	12	5	2	4	11	20	23	25
14Z (08L)	27	27	25	23	16	10	4	6	15	24	26	25
13Z (07L)	27	29	24	25	21	13	7	7	17	25	25	25
12Z (06L)	26	28	25	22	21	12	7	6	16	25	23	23
11Z (05L)	25	24	22	18	20	13	6	5	12	19	21	22
10Z (04L)	27	23	21	16	17	11	5	5	12	18	21	22
09Z (03L)	25	23	20	15	12	7	4	4	10	17	19	21
08Z (02L)	24	20	18	14	10	6	3	3	10	15	17	21
07Z (01L)	22	19	18	11	9	4	2	2	9	12	17	20
06Z (00L)	21	17	17	9	7	3	2	2	6	10	14	19
05Z (23L)	20	16	14	9	5	3	1	2	5	9	14	20
04Z (22L)	18	16	12	8	4	2	1	1	4	8	13	17
03Z (21L)	16	14	11	6	3	2	1	1	4	7	13	16
02Z (20L)	14	16	11	6	3	2	0	1	3	6	12	15
01Z (19L)	14	14	10	5	3	1	0	1	3	5	11	14
00Z (18L)	14	13	10	5	2	1	0	1	3	5	10	13

5 20

VISIBILITY CLIMO
(< 3 SM)

% Visibility < 3 SM
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22Z (16L)	9	8	4	2	2	1	0	1	2	3	4	8
21Z (15L)	9	7	4	3	2	1	0	1	2	3	5	8
20Z (14L)	10	6	5	3	1	1	0	1	3	2	4	9
19Z (13L)	11	7	5	4	1	1	1	1	2	3	5	9
18Z (12L)	11	7	8	3	2	1	0	1	3	3	5	9
17Z (11L)	15	9	8	5	2	1	1	0	3	4	7	9
16Z (10L)	16	12	9	7	4	1	1	1	3	7	10	13
15Z (09L)	19	16	12	9	5	1	1	1	4	10	14	17
14Z (08L)	20	18	16	11	6	2	1	2	6	15	17	17
13Z (07L)	19	18	15	13	9	4	3	3	10	19	18	16
12Z (06L)	17	16	16	13	11	5	3	4	9	16	16	13
11Z (05L)	16	13	13	8	9	5	3	2	5	10	14	12
10Z (04L)	17	13	10	7	5	3	2	1	4	7	12	12
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05Z (23L)	13	7	7	4	2	1	0	0	1	4	7	13
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00Z (18L)	10	8	6	3	1	1	0	0	2	3	5	7

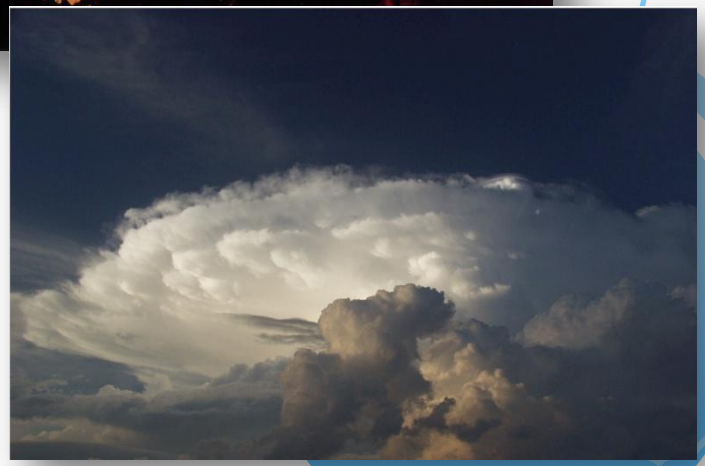
Summer Hazards

Summer Hazards

- Degraded Flying Operations
  - Thunderstorms
    - Downbursts Gusts
    - Lightning
    - Hail
- High Temperatures
  - Coupled with high humidity can cause heat injuries and rapid fatigue
  - Ambient temperatures appear to feel warmer than actual temperature (heat index), watch outdoor activity closely

Summer Hazards

- Thunderstorms
  - Strong gusty wind
  - Turbulence
  - Low ceilings
  - Reduced visibilities
  - Hail
  - Severe weather possible



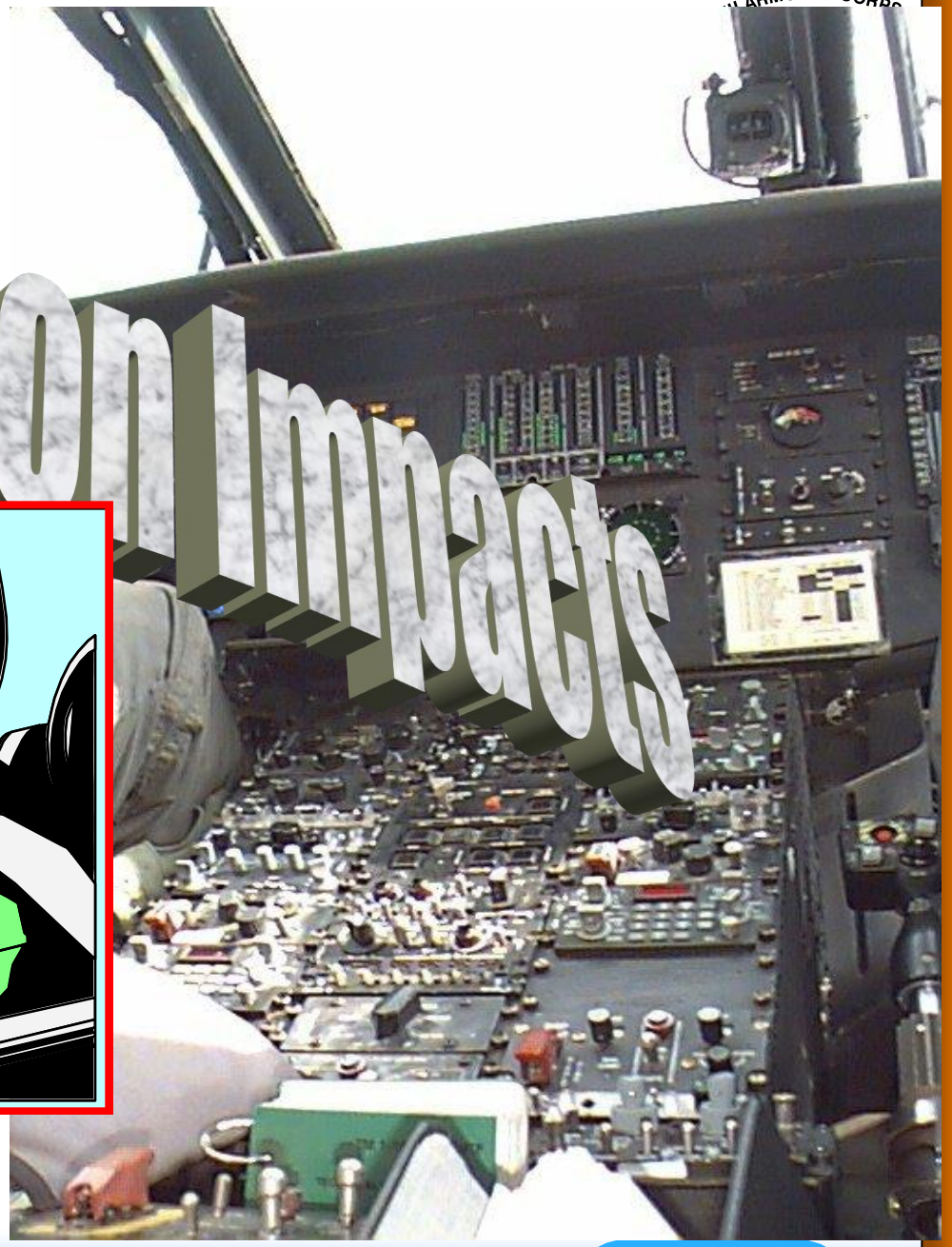
THUNDERSTORMS

- Expect severe turbulence, icing, and hail
- Greatest turbulence between updrafts and downdrafts
- Gust fronts (pseudo cold front) can form ahead of advancing thunderstorms
- Expect hail beneath the anvil (not only within or under the thunderstorm)

SEVERE WEATHER

- Peak season
  - **March through June**
- Most frequent: afternoon/evening hours
- Linear formation along or ahead of fronts—dry line thunderstorms
- RAPID FORMATION!
  - **Outflow boundaries enhance further development (usually to the southwest of the line)**

Aviation Impacts




Lightning

LIGHTNING AND ELECTROSTATIC DISCHARGE

- Leading cause of weather related aircraft accidents
- Can occur in clear air as well as within and around a thunderstorm


Turbulence

TURBULENCE

- Turbulence is one of the most unexpected aviation hazards to fly through and one of the most difficult to forecast
- Caused by *abrupt, small-scale variations in wind speed and direction*
- **Pilot Reports (PIREPS) are crucial!**
  - May trigger advisories to help warn others
  - Always include location, time, intensity, flight level, and aircraft type

Gray METRO: UHF 306.5 / FM 41.2

TURBULENCE

(Continued)

- May occur any time without warning

  - Directly proportional to speed:

  Faster aircraft=more turbulence experienced

  - Inversely proportional to weight:

  Heavier aircraft=less turbulence experienced

  - Directly proportional to wing area

  Greater distance between leading and trailing edge of wing=more turbulence

TURBULENCE

(Continued)

- Intensities based upon Airspeed & Climb Rate
  - Light: Slight, erratic changes in altitude and or attitude (pitch, roll, yaw)
  - Moderate: Greater intensity than light, but aircraft remains in positive control
  - Severe: Large abrupt changes in altitude/attitude, large variations in airspeed; control becomes very difficult
  - Extreme: Aircraft violently tossed around with control virtually impossible; may cause structural damage

TURBULENCE

(Continued)

- Also caused by strong wind over rough terrain *(Fort Hood area not considered rough terrain)*
  - Rougher terrain = More turbulence
  - Higher wind speed = More Turbulence
- Frontal Transition Zone Turbulence
- Jet Stream (CAT)

TURBULENCE

(Continued)

- Wake Turbulence: Caused by ‘Wingtip Vortices’
- **Virtually all aircraft produce wingtip vortices while in flight, even rotary wing aircraft; this is especially apparent with heavier aircraft**

LOW-LEVEL WIND SHEAR (LLWS)

- Rapid change in wind direction or speed below 2,000 feet AGL
- May occur with or without Turbulence
- Causes sudden changes in aircraft performance and attitude
- Common occurrence in Central Texas associated with nocturnal low-level jet
- Can occur with fronts and thunderstorm gust fronts (microburst)

Gray METRO: UHF 306.5


Weather Alerts

WEATHER **WATCHES**

- Issued for the ***potential*** of weather conditions that can effect operations and safety at *Ft Hood and/or the Western Training Area* -- Command decision on whether or not operations are altered
- Valid Times per text
- Valid for area described in text
  - Western Training Area (Entire area or specific sector(s)--northeast, southeast, southwest or northwest)

WEATHER **WARNINGS**

- Take actions to protect property and life
- Valid Times per text
  - Observed Warnings valid Until Further Notice (UFN)
- Valid for area described in text
  - Fort Hood Reservation (Includes or does not include RGAAF and/or HAAF)
  - Western Training Area (Entire area or specific sector(s)--northeast, southeast, southwest or northwest)

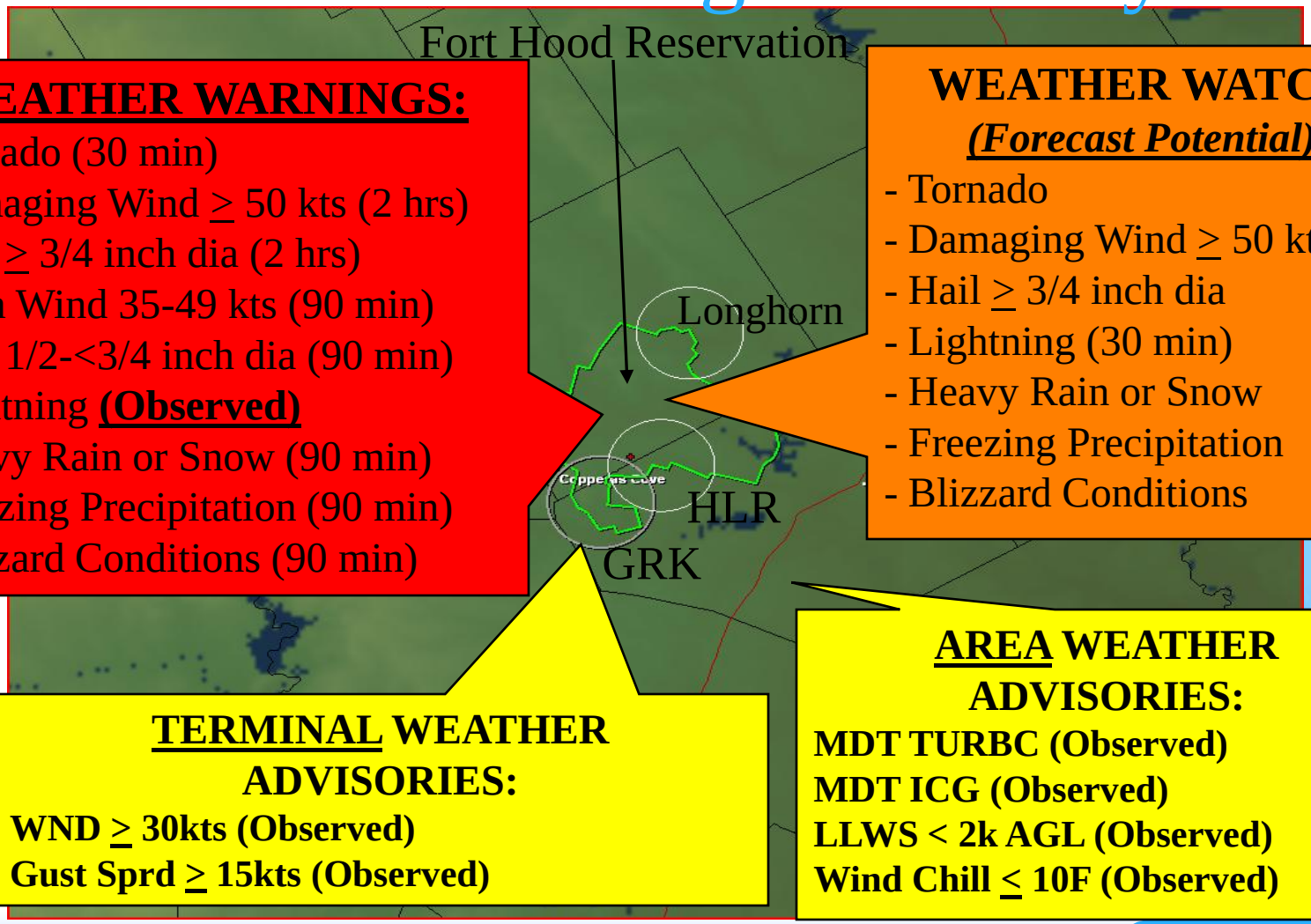
WEATHER **ADVISORIES**

- General -- All Ft Hood **advisories are *observed*** thus have the same effect on flight ops as warnings do

- **Terminal Weather Advisories**
  - Valid within 5 NM of RGAAF and HAAF
  - Issued for weather conditions that effect airfield/flight operations and safety
- **Area Weather Advisories**
  - Valid within 50 NM of Fort Hood Reservation
  - Issued for weather conditions that effect local flight operations/safety

Fort Hood Reservation

Watch / Warning / Advisory



WEATHER WARNINGS:

- Tornado (30 min)
- Damaging Wind ≥ 50 kts (2 hrs)
- Hail ≥ 3/4 inch dia (2 hrs)
- High Wind 35-49 kts (90 min)
- Hail 1/2-<3/4 inch dia (90 min)
- Lightning **(Observed)**
- Heavy Rain or Snow (90 min)
- Freezing Precipitation (90 min)
- Blizzard Conditions (90 min)

WEATHER WATCH
(Forecast Potential)

- Tornado
- Damaging Wind ≥ 50 kts
- Hail ≥ 3/4 inch dia
- Lightning (30 min)
- Heavy Rain or Snow
- Freezing Precipitation
- Blizzard Conditions

TERMINAL WEATHER ADVISORIES:

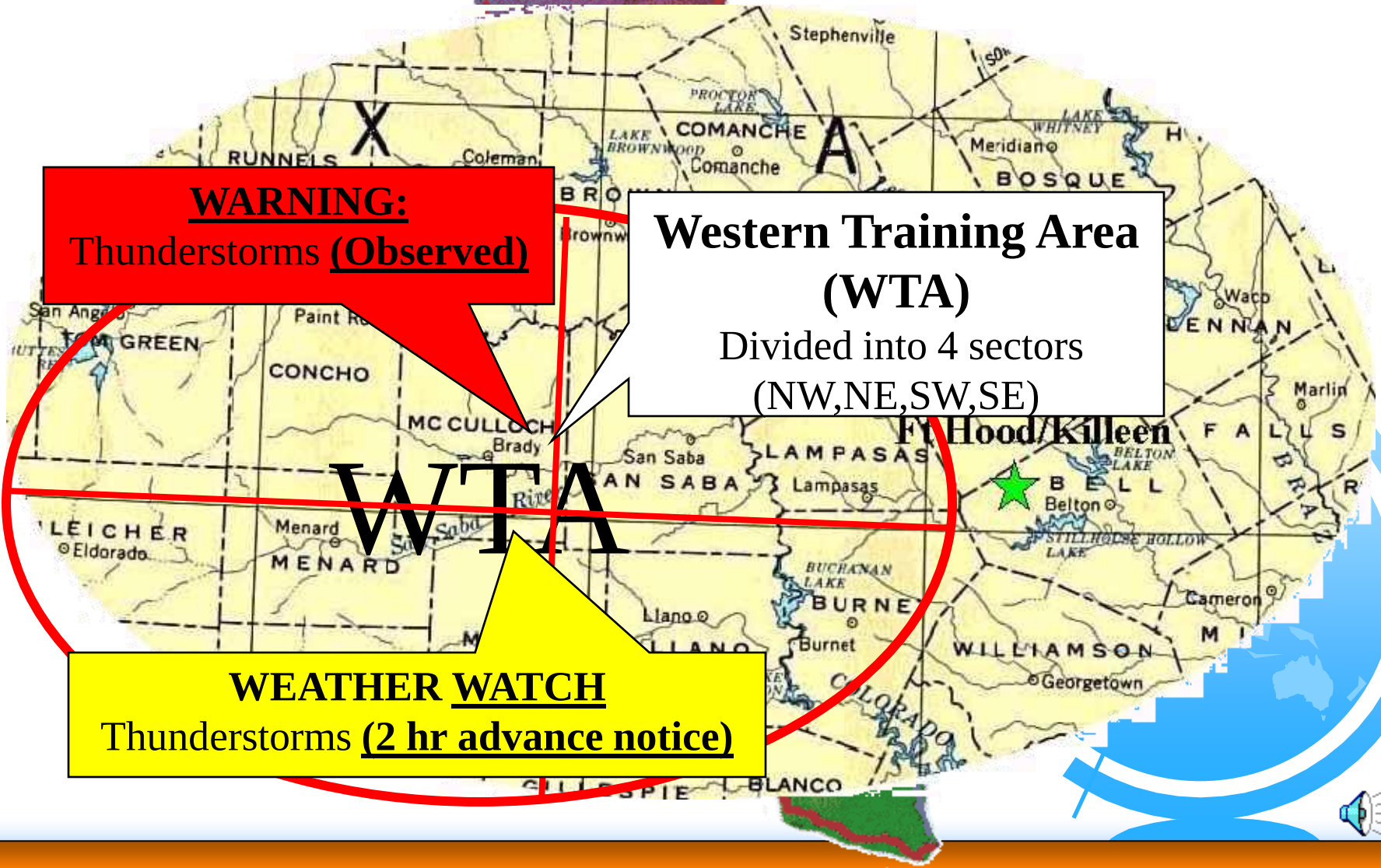
WND ≥ 30kts (Observed)
Gust Sprd ≥ 15kts (Observed)

AREA WEATHER ADVISORIES:

MDT TURBC (Observed)
MDT ICG (Observed)
LLWS < 2k AGL (Observed)
Wind Chill ≤ 10F (Observed)

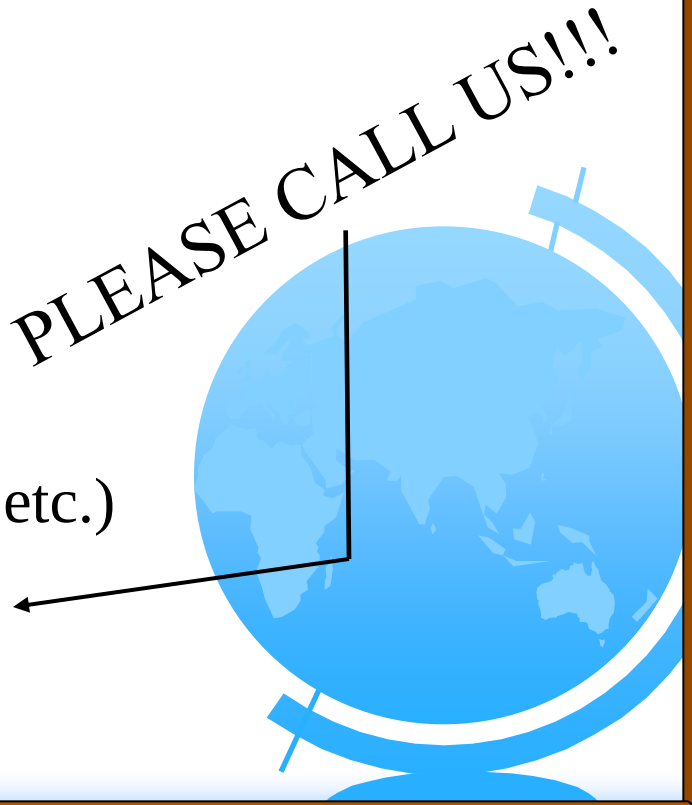
WESTERN TRAINING AREA

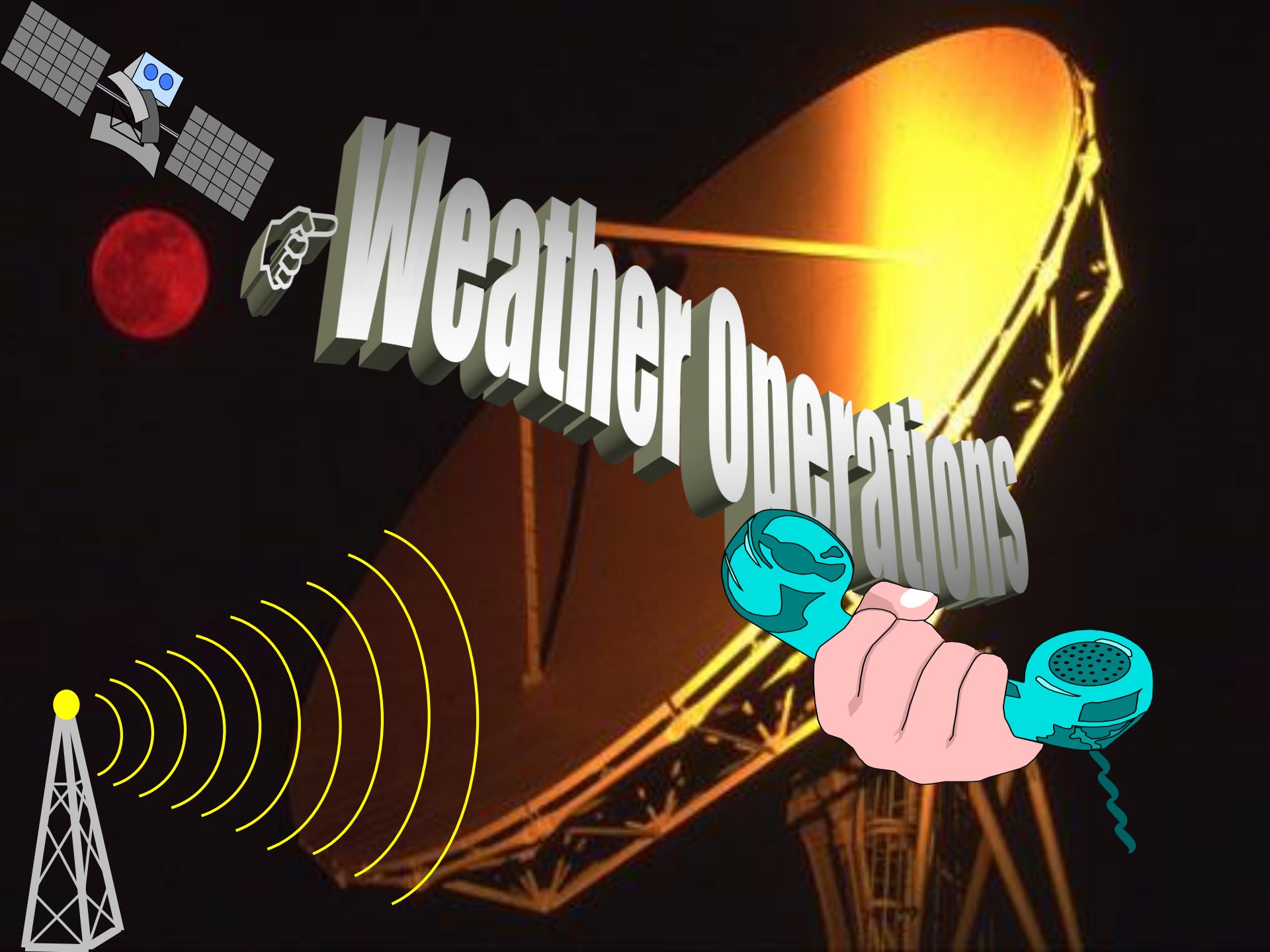
Watch / Warning



PILOT REPORTS (PIREPS)

- Provide forecasters additional observations around the reservation and Western training areas
  - Thunderstorms
  - Turbulence
  - Icing
  - Low-Level Wind Shear (LLWS)
  - Cloud conditions
  - Wind, temperature, etc..
  - Visibility, weather (i.e., fog, rain, etc.)
- PMSV frequencies: **UHF 306.5**




Weather Operations

RGAAF Weather Station Operations

- RGAAF Weather Station located on West Fort Hood, Airfield Ops Bldg 90029:
  - 24/7 Operations
  - 2 Forecasters Mon-Fri 0600-1400L
  - 1 Forecaster Nights, Weekends, & Holidays
  - Manual Weather Observations
  - Flight Weather Briefings
- HAAF: Automated Weather Observations Only

Gray METRO: UHF 306.5

FLIGHT WEATHER BRIEFINGS

- Call 288-9620 or 288-9400
- E-mail: **hood.3asog3ws.woc@us.army.mil**
- Please arrange DD175-1 weather briefings as far in advance as possible
- **IAW AR 95-1, ONLY PILOTS CAN RECEIVE FLIGHT WEATHER BRIEFINGS**

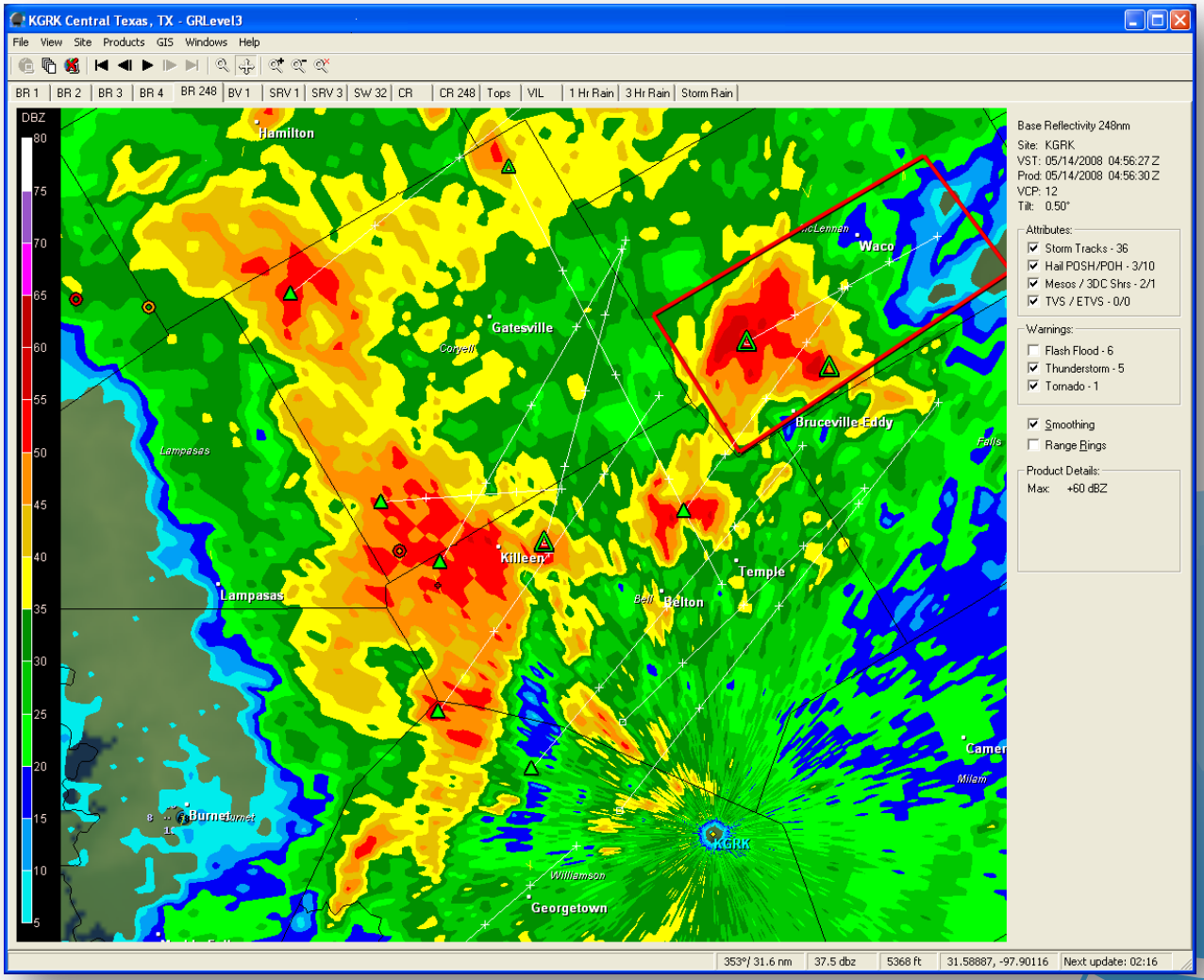
FLIGHT WEATHER BRIEFINGS (Continued)

- DD175-1 Weather Briefs can be faxed or E-mailed
- **IMPORTANT:** Aircrews must call 288-9620/9400 after receiving the brief for briefer's initials, brief & void times--otherwise briefing is not official!
- For weather information visit our web site:

www.hood.army.mil/3ws

  - Current local airfield weather conditions
  - Current weather watches, warnings, advisories
  - Other weather information products

DOPPLER RADAR TECHNOLOGY



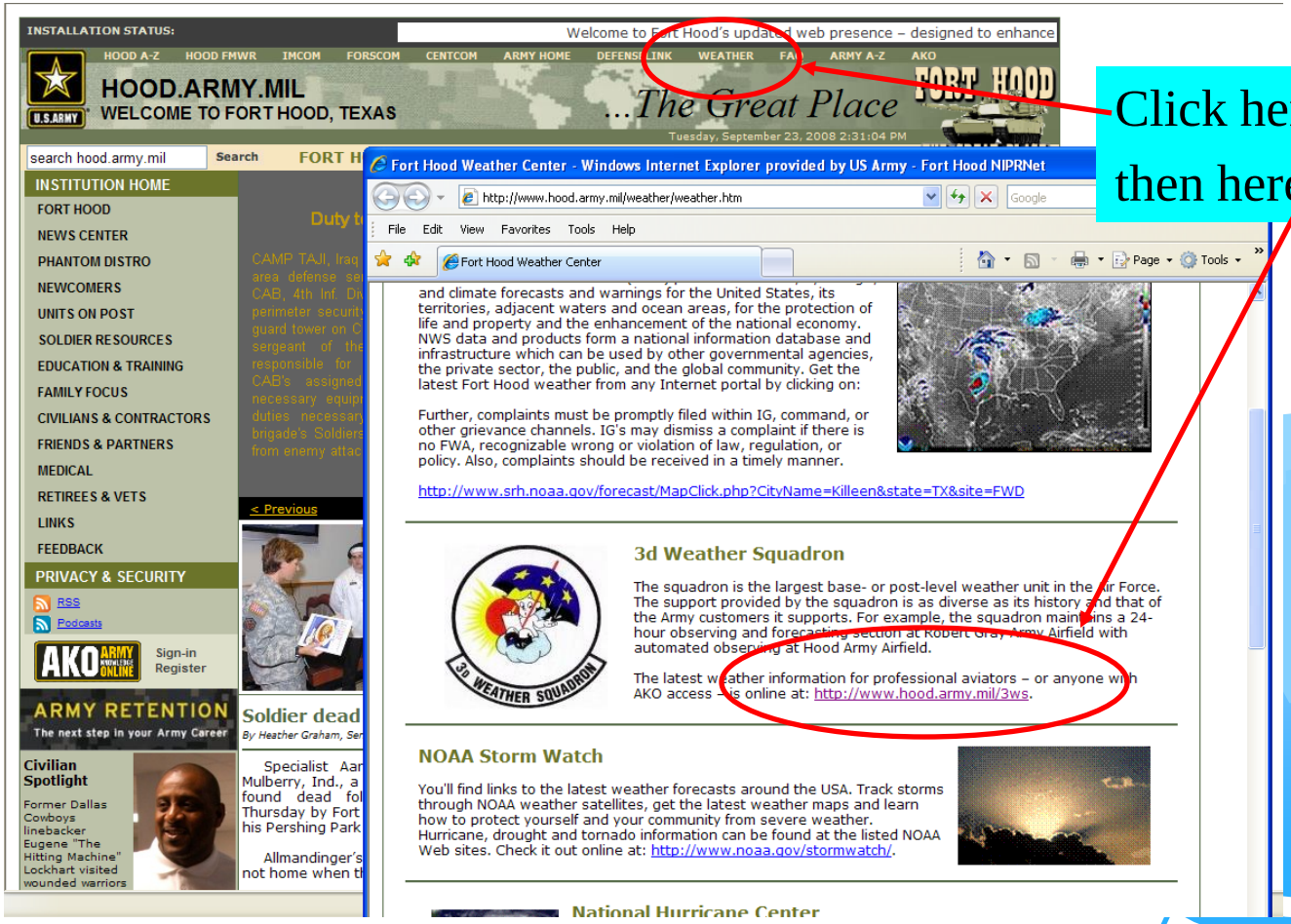
DOPPLER RADAR TECHNOLOGY

- Tracks storm movement
- Provides vertical wind profiles (LLWS)
- Determine storm relative motion
- Highlights “potential” severe weather
  - Hail
  - Storm rotation--Tornadoes
- Cross-sections

3D Weather Squadron Homepage

www.hood.army.mil/3ws

Fort Hood Home Page



3D Weather Squadron Homepage

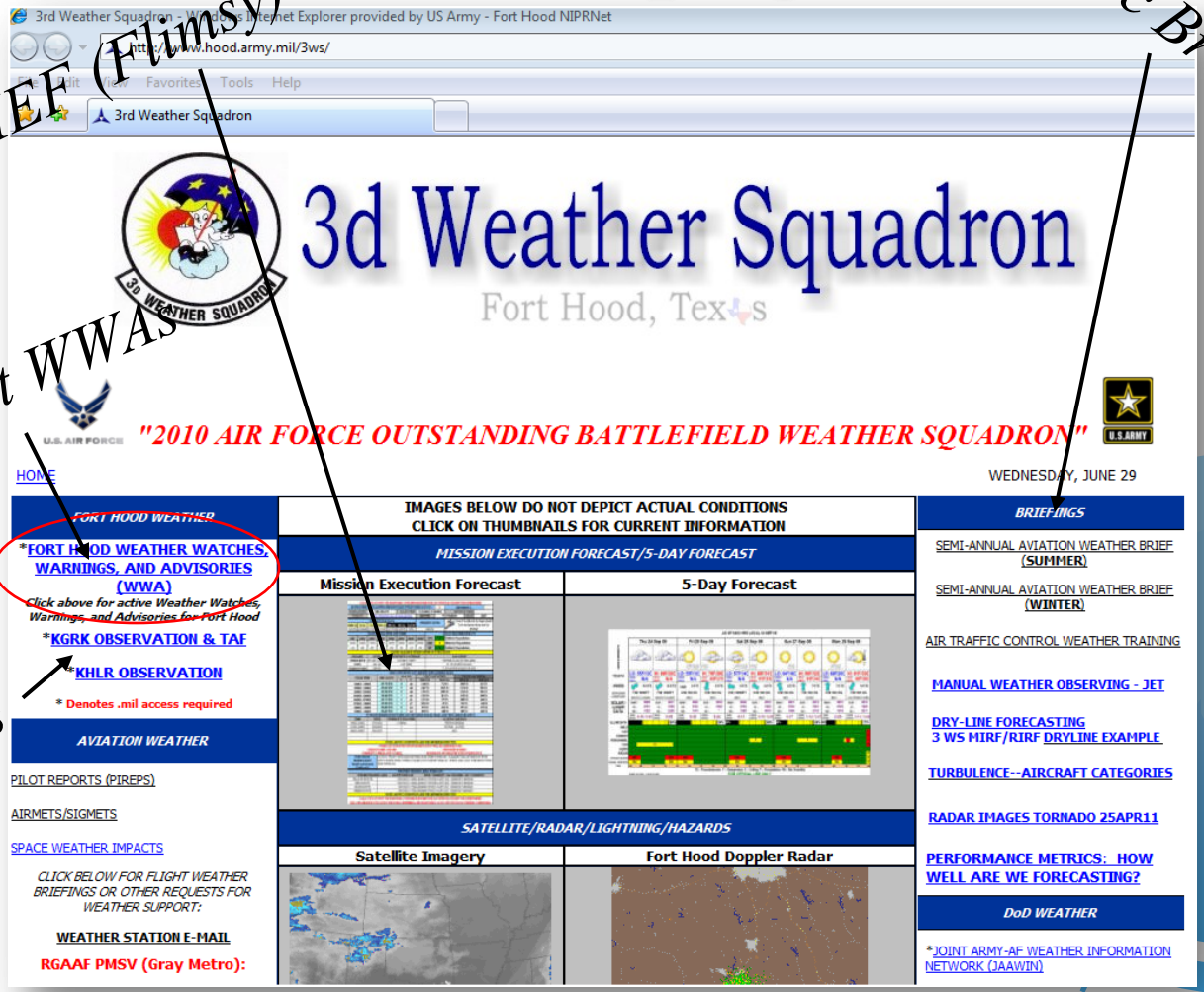
III ARMORED CORPS
PHANTOM

Current MEF (Flimsy)

Current WWAs

Current Obs

Misc Briefings



5-Day Forecast

Fort Hood

5-Day Weather Outlook & Effects

October Climatology
Avg Hi: 79F Avg Low: 59F
Avg Precip: 3.6 Inches

AS OF 0500 HRS LOCAL 12 OCT 10

	Tue 12 Oct 10		Wed 13 Oct 10		Thu 14 Oct 10		Fri 15 Oct 10		Sat 16 Oct 10	
FORECAST	MIST							MOSTLY CLOUDY		
TEMPS	LO: 57F/14C	HI: 86F/30C	LO: 59F/15C	HI: 79F/26C	LO: 50F/10C	HI: 79F/26C	LO: 45F/7C	HI: 81F/27C	LO: 46F/8C	HI: 79F/26C
WIND CHILL	N/A		N/A		N/A		43F/6C		44F/6C	
HEAT INDEX		N/A		N/A		N/A		N/A		N/A
WINDS	10G15 KTS	10G15 KTS	8 KTS	11 KTS	6 KTS	6 KTS	3 KTS	5 KTS	5 KTS	6 KTS
SKY/VIS/WX CONDITIONS	4 MI / NO CIG MIST	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / 25000FT MOSTLY CLOUDY	7 MI / 25000FT MOSTLY CLOUDY	7 MI / NO CIG CLEAR
SOLAR / LUNAR DATA	BMNT: 0540 SR: 0732 MR: 1246	EENT: 1955 SS: 1903 MS: 2301	BMNT: 0540 SR: 0733 MR: 1335	EENT: 1954 SS: 1902 MS: 2359	BMNT: 0541 SR: 0733 MR: 1419	EENT: 1953 SS: 1901 MS: --	BMNT: 0542 SR: 0734 MR: 1458	EENT: 1952 SS: 1900 MS: 0057	BMNT: 0542 SR: 0735 MR: 1539	EENT: 1951 SS: 1859 MS: 0153
	DARK PERIOD 6:40 / 0:59	MOON PERIOD 3:06	DARK PERIOD 6:40 / 0:01	MOON PERIOD 4:05	DARK PERIOD 6:41	MOON PERIOD 4:07	DARK PERIOD 5:45	MOON PERIOD 0:57 / 4:08	DARK PERIOD 4:49	MOON PERIOD 1:53 / 4:09
ILLUM DATA	33%		43%		53%		54%	63%	63%	72%
HELO										
UAV										
CONVOY										
PERSONNEL		T								
CAS										
JLENS										
RADAR										
INFRARED SENSORS	RH								RH	
VISUAL SENSORS	RH								RH	
TIME	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18

T – Temperature RH – Rel Humidity

FORECASTER : 3 WS

FOR OFFICIAL USE ONLY

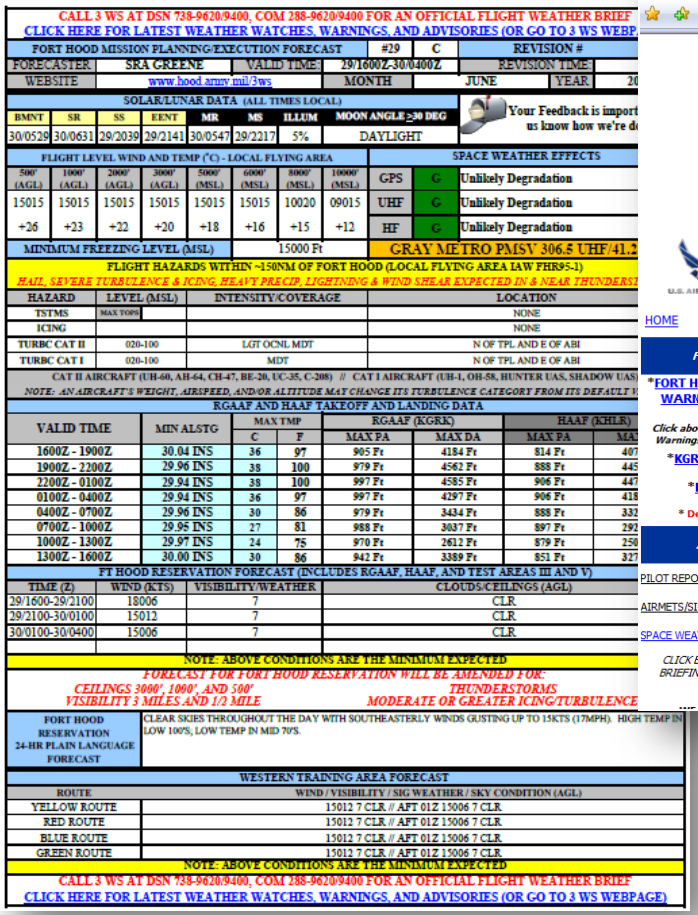
FOR PLANNING PURPOSES ONLY

Integrity - Service - Excellence

3 WS Mission Planning & Execution Forecast (Flimsy)

- Located on our web page: www.hood.army.mil/3ws
- Updated 3 times daily (0000Z, 0800Z, 1600Z)
- Amended:
  - Ceiling 3000 ft
  - Ceiling/Visibility 1000 ft / 3 SM (IFR – VFR)
  - Ceiling/Visibility 500 ft / ½ SM (HAAF Airfield Minimums)
  - Thunderstorms, Moderate or Greater Icing & Turbulence
- Aircrews flying within Fort Hood Reservation & Test Flight Areas III/V must call for official brief
  - Call the weather station at 288-9620 or 9400 to verify current Flimsy #, any updates, brief/void time and forecaster's initials
  - Units' ops may post copy of flimsy in common areas for aircrews **(IMPORTANT: Check website periodically for changes especially during inclement weather)**

MEF (Flimsy)



CALL 3 WS AT DSN 738-9620/9400, COM 288-9620/9400 FOR AN OFFICIAL FLIGHT WEATHER BRIEF
CLICK HERE FOR LATEST WEATHER WATCHES, WARNINGS, AND ADVISORIES (OR GO TO 3 WS WEBP

FORT HOOD MISSION PLANNING/EXECUTION FORECAST			#29	C	REVISION #
FORECASTER	SRA GREENE	VALID TIME:	29/1600Z-30/0400Z		REVISION TIME:
WEBSITE	www.hood.army.mil/3ws	MONTH	JUNE	YEAR	20

SOLAR/LUNAR DATA (ALL TIMES LOCAL)

BMNT	SR	SS	EENT	MR	MS	ILLUM	MOON ANGLE ≥30 DEG
30/0529	30/0631	29/2039	29/2141	30/0547	29/2217	5%	DAYLIGHT

Your Feedback is import
us know how we're d

FLIGHT LEVEL WIND AND TEMP (°C) - LOCAL FLYING AREA

500' (AGL)	1000' (AGL)	2000' (AGL)	3000' (AGL)	5000' (MSL)	6000' (MSL)	8000' (MSL)	10000' (MSL)
15015	15015	15015	15015	15015	15015	10020	09015
+26	+23	+22	+20	+18	+16	+15	+12

SPACE WEATHER EFFECTS

GPS	G	Unlikely Degradation
UHF	G	Unlikely Degradation
HF	G	Unlikely Degradation

MINIMUM FREEZING LEVEL (MSL): 15000 Ft

GRAY METRO PMSV 306.5 UHF/41.2

FLIGHT HAZARDS WITHIN ~150NM OF FORT HOOD (LOCAL FLYING AREA IAW FHR95-1)
HAIL, SEVERE TURBULENCE & ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN & NEAR THUNDERST

HAZARD	LEVEL (MSL)	INTENSITY/COVERAGE	LOCATION
TSTMS	MAX TOPS		NONE
ICING			NONE
TURBC CAT II	020-100	LGT OCNL MDT	N OF TPL AND E OF ABI
TURBC CAT I	020-100	MDT	N OF TPL AND E OF ABI

CAT II AIRCRAFT (UH-60, AH-64, CH-47, BE-20, UC-35, C-208) // CAT I AIRCRAFT (UH-1, OH-58, HUNTER UAS, SHADOW UAS
NOTE: AN AIRCRAFT'S WEIGHT, AIRSPEED, AND/OR ALTITUDE MAY CHANGE ITS TURBULENCE CATEGORY FROM ITS DEFAULT

RGAAF AND HAAF TAKEOFF AND LANDING DATA

VALID TIME	MIN ALSTG	MAX TMP		RGAAF (KGRK)		HAAF (KHLR)	
		C	F	MAX PA	MAX DA	MAX PA	MA
1600Z - 1900Z	30.04 INS	36	97	905 Ft	4184 Ft	814 Ft	407
1900Z - 2200Z	29.96 INS	38	100	979 Ft	4562 Ft	888 Ft	445
2200Z - 0100Z	29.94 INS	38	100	997 Ft	4585 Ft	906 Ft	447
0100Z - 0400Z	29.94 INS	36	97	997 Ft	4297 Ft	906 Ft	418
0400Z - 0700Z	29.96 INS	30	86	979 Ft	3434 Ft	888 Ft	332
0700Z - 1000Z	29.95 INS	27	81	988 Ft	3037 Ft	897 Ft	292
1000Z - 1300Z	29.97 INS	24	75	970 Ft	2612 Ft	879 Ft	250
1300Z - 1600Z	30.00 INS	30	86	942 Ft	3389 Ft	851 Ft	327

FT HOOD RESERVATION FORECAST (INCLUDES RGAAF, HAAF, AND TEST AREAS III AND V)

TIME (Z)	WIND (KTS)	VISIBILITY/WEATHER	CLOUDS/CEILINGS (AGL)
29/1600-29/2100	18006	7	CLR
29/2100-30/0100	15012	7	CLR
30/0100-30/0400	15006	7	CLR

NOTE: ABOVE CONDITIONS ARE THE MINIMUM EXPECTED
FORECAST FOR FORT HOOD RESERVATION WILL BE AMENDED FOR:
CEILINGS 3000', 1000', AND 500' — THUNDERSTORMS
VISIBILITY 3 MILES AND 1/2 MILE — MODERATE OR GREATER ICING/TURBULENCE

FORT HOOD RESERVATION 24-HR PLAIN LANGUAGE FORECAST	CLEAR SKIES THROUGHOUT THE DAY WITH SOUTHEASTERLY WINDS GUSTING UP TO 15KTS (17MPH). HIGH TEMP IN LOW 100'S, LOW TEMP IN MID 70'S.

WESTERN TRAINING AREA FORECAST

ROUTE	WIND / VISIBILITY / SIG WEATHER / SKY CONDITION (AGL)
YELLOW ROUTE	15012 7 CLR // AFT 01Z 15006 7 CLR
RED ROUTE	15012 7 CLR // AFT 01Z 15006 7 CLR
BLUE ROUTE	15012 7 CLR // AFT 01Z 15006 7 CLR
GREEN ROUTE	15012 7 CLR // AFT 01Z 15006 7 CLR

NOTE: ABOVE CONDITIONS ARE THE MINIMUM EXPECTED
CALL 3 WS AT DSN 738-9620/9400, COM 288-9620/9400 FOR AN OFFICIAL FLIGHT WEATHER BRIEF
CLICK HERE FOR LATEST WEATHER WATCHES, WARNINGS, AND ADVISORIES (OR GO TO 3 WS WEBPAGE)

Click here

www.hood.army.mil/3ws/Flimsy/MEF.pdf

MEF – Flight Hazards

FLIGHT HAZARDS WITHIN ~150NM OF FORT HOOD (LOCAL FLYING AREA IAW FHR95-1) *HAIL, SEVERE TURBULENCE & ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN & NEAR THUNDERSTORMS*			
HAZARD	**LEVEL (MSL)**	**INTENSITY/COVERAGE**	**LOCATION**
TSTMS	MAX TOPS 450	ISOLD	NORTH OF A LINE FROM CLL-GRK-SJT
ICING	060-160	LGT RIME	N1/2 LOCAL FLYING AREA (N OF AUS) TIL 21Z
TURBC CAT II	SFC-080//180-400	LGT-MDT // MDT	ENTIRE LFA TO INCLUDE FORT HOOD RES TIL 00Z
TURBC CAT I	SFC-080	MDT	ENTIRE LFA TO INCLUDE FORT HOOD RES TIL 00Z
CAT II AIRCRAFT (UH-60, AH-64, CH-47, BE-20, UC-35, C-208) // CAT I AIRCRAFT (UH-1, OH-58, HUNTER UAS, SHADOW UAS) *NOTE: AN AIRCRAFT'S WEIGHT, AIRSPEED, AND/OR ALTITUDE MAY CHANGE ITS TURBULENCE CATEGORY FROM ITS DEFAULT VALUE*			

Local Flying Area (LFA) – FHR95-1

MEF – Turbulence

FLIGHT HAZARDS WITHIN ~150NM OF FORT HOOD (LOCAL FLYING AREA IAW FHR95-1) *HAIL, SEVERE TURBULENCE & ICING, HEAVY PRECIP, LIGHTNING & WIND SHEAR EXPECTED IN & NEAR THUNDERSTORMS*			
HAZARD	LEVEL (MSL)	INTENSITY/COVERAGE	LOCATION
TSTMS	MAX TOPS 450	ISOLD	NORTH OF A LINE FROM CLL-GRK-SJT
ICING	060-160	LGT RIME	N1/2 LOCAL FLYING AREA (N OF AUS) TIL 21Z
TURBC CAT II	SFC-080//180-400	LGT-MDT // MDT	ENTIRE LFA TO INCLUDE FORT HOOD RES TIL 00Z
TURBC CAT I	SFC-080	MDT	ENTIRE LFA TO INCLUDE FORT HOOD RES TIL 00Z
CAT II AIRCRAFT (UH-60, AH-64, CH-47, BE-20, UC-35, C-208) // CAT I AIRCRAFT (UH-1, OH-58, HUNTER UAS, SHADOW UAS) *NOTE: AN AIRCRAFT'S WEIGHT, AIRSPEED, AND/OR ALTITUDE MAY CHANGE ITS TURBULENCE CATEGORY FROM ITS DEFAULT VALUE*			

- Different types of aircraft have different sensitivities to turbulence
  - An aircraft's sensitivity varies considerably with its weight (amount of fuel, cargo, munitions, etc.), air density, wing surface area, wing sweep angle, airspeed, and aircraft flight "attitude"
  - An aircraft's weight, airspeed, and/or altitude may change its turbulence category from its default value
- **Turbulence forecasts in TAFs are for CAT II aircraft**

UAS (Shadow) MEF

- Use 3 WS MEF (Flimsy) for mission planning
- Contact RGAAF weather station for actual flight weather briefs
  - Provide Unit, Phone #, Location (i.e., LSCS), Aircraft Tail#, Launch/Landing Time, Flight Level, and Pilot Name

SHADOW UAS MISSION EXECUTION FORECAST **MONTH/YEAR:**

UNIT / PHONE#: **LOCATION:**

TAIL #	LAUNCH DTG:	RECOVERY DTG:	FLIGHT LEVEL:
TEMP (C)		WIND/TEMP ALOFT (C)	
DEWPOINT (C)		2K MSL	
RH (%)		4K MSL	
ALSTG		6K MSL	
PA		8K MSL	
DA		10K MSL	
SFC WIND--LAUNCH		THUNDERSTORMS	
SFC WIND--RECOVERY		TURBULENCE (CAT I Aircraft)	
MIN VIS / WX		ICING	
MIN CIG			
FREEZING LVL		BRIEF / VOID TIME	
WWA (#)		INITIALS BRIEFER/PILOT	
		EXTENDED TIME	
		INITIALS BRIEFER/PILOT	

UAS (Shadow) MEF

SHADOW UAS MISSION EXECUTION FORECAST

MONTH/YEAR:

UNIT / PHONE#:

LOCATION:

TAIL #	LAUNCH DTG:	RECOVERY DTG:	FLIGHT LEVEL:
TEMP (C)		WIND/TEMP ALOFT (C)	
DEWPOINT (C)		2K MSL	
RH (%)		4K MSL	
ALSTG		6K MSL	
PA		8K MSL	
DA		10K MSL	
SFC WIND--LAUNCH		THUNDERSTORMS	
SFC WIND--RECOVERY		TURBULENCE (CAT I Aircraft)	
MIN VIS / WX		ICING	
MIN CIG			
FREEZING LVL		BRIEF / VOID TIME	
WWA (#)		INITIALS BRIEFER/PILOT	
		EXTENDED TIME	
		INITIALS BRIEFER/PILOT	

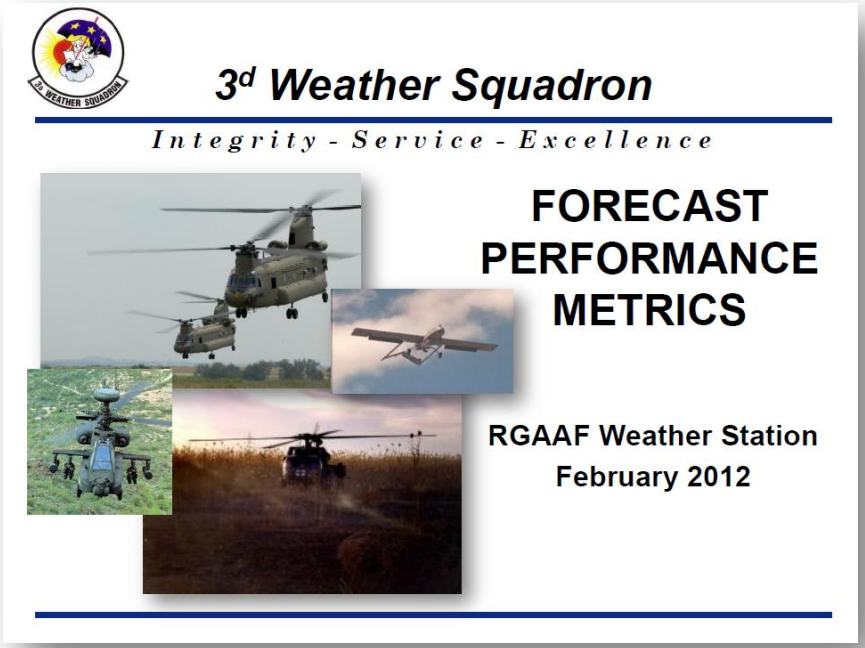
Minimum/worst conditions expected for the mission duration

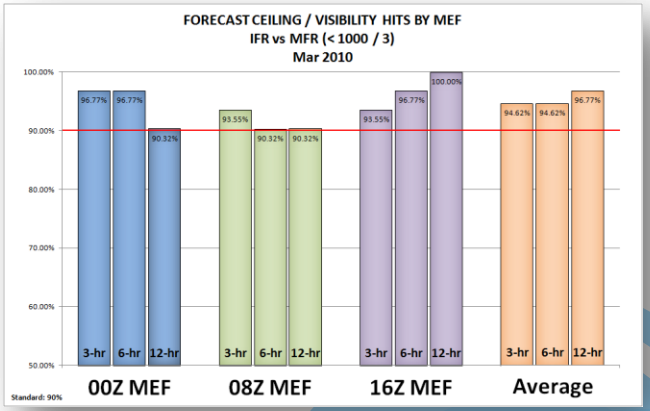
Forecast Performance Metrics

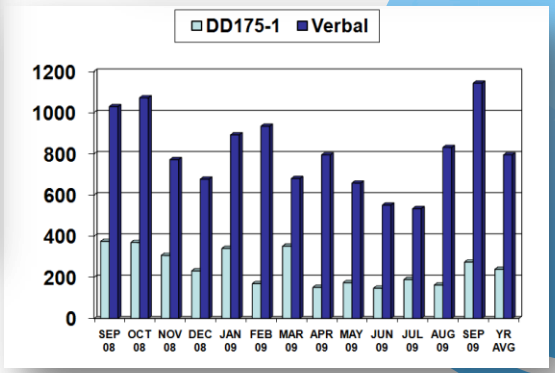
- How well are we forecasting mission impacting weather?
- **Best measure of our performance is direct feedback from aircrews:**
  - Click on “Feedback Icon” on flimsy; send an E-mail
  - Complete Flight Weather Briefing Feedback Form on our webpage or faxed with all DD175-1s
  - Call RGAAF weather station NCOIC at 288-9166
- We’ll take good and bad comments!!!

Monthly Performance Metrics

- Check out our monthly performance reports on our web site: www.hood.army.mil/3ws/MEFVERFeedback.ppt







Objective Verification

- In addition to direct feedback we employ an objective method to measure (verify) our forecast performance:
  - We selected three key operational parameters:
    - **Ceiling / Visibility < 1000 feet / 3 miles** ***(IFR)***
    - **Ceiling / Visibility < 500 feet / 1/2 mile** ***(HLR Airfield Minimums)***
    - **Thunderstorms**
  - We measure the accuracy of each Fort Hood Reservation Forecast (Flimsy) published on the 3 WS web page
  - We use observations at GRK, HLR, and GOP (Gatesville) and any PIREPs to verify each flimsy at the 3-, 6-, and 12-hour point from the original issuance time

Did the Forecast or Weather Impact the Mission?

- Did we forecast **"GO"** weather for your mission and weather was a **"GO"** -- mission completed
- Did we forecast **"GO"** weather for your mission and weather was a **"NO GO"** -- mission cancelled or changed due to un-forecast weather
- Did we forecast **"NO GO"** weather for your mission and weather was **"GO"**-- mission cancelled or changed due to forecast *(lost opportunity or needless change)*
- Did we forecast **"NO GO"** weather for your mission and weather was **"NO GO"** -- mission cancelled or changed due to forecast/weather *(if inserted early in planning process this situation can prevent wasted time and enhance planning process)*

POCs

- 3 WS Commander: **288-1313**
- 3 WS Operations Officer: **287-7397**
- Operations Superintendent: **287-2948**
- RGAAF Weather Station NCOIC: **288-9166**
- RGAAF Weather Station: **288-9620/9400**
- Corps Weather Plans **288-9176/5965/0197**

Gray METRO: UHF 306.5

SUMMARY

- Local Area Influences
- Summer Climatology
- Hazards
- Training Areas
- Watches/Warnings/Advisories
- Weather Operations
- POCs


THE END
Any Question or comments?